

**41-49 FROGMORE LANE,
LOVEDEAN, HAMPSHIRE
REPTILE SURVEY REPORT
MAY, 2015**

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1.0 INTRODUCTION/PURPOSE OF THE REPORT

1.1 BACKGROUND DETAILS

- 1.1.1 Brian Masterton has been instructed by Bob Spencer of Driftstone Homes Limited, to carry out a Reptile Survey and Translocation Programme, following previous Ecological/Reptile Surveys of the site known as 41-49 Frogmore Lane, Lovedean, Hampshire which has confirmed the presence of slow worms (*Anguis fragilis*) within the grassland areas which now cover the upper sections of the rear gardens of 43 and 47 Frogmore Lane. These two sections of the gardens have been fenced off from the lower sections which are retained as the rear gardens to the two properties. The entire rear gardens to 41, 43 and 47 Frogmore Lane are cultivated and well tended whilst the upper sections of the gardens to 45 and 49 Frogmore Lane are isolated and remain overgrown.
- 1.1.2 The presence of slow worms was confirmed during reptile surveys comprising seven site visits undertaken during August, 2014 following the placing of artificial refugia (cut sheets of roofing felt used to attract basking reptiles) within the overgrown sections of the site. This follows current legislation and accepted methodologies whereby due consideration should be given to ground dwelling protected species confirmed to be present on a site that may be altered by future development. Subsequently a Reptile Mitigation Methodology has been formulated and is detailed within this Report Document.
- 1.1.3 The purpose of this Report Document is to describe the details of the surveys of reptiles inhabiting the Frogmore Lane Site, the process of capture and translocation, and to provide details of the agreed receptor site within the Alver Valley Nature Reserve, Gosport which is to include a study of the behaviour of translocated reptiles throughout 2015-16. The study will also include detailed and frequent post monitoring to be undertaken subsequent to the translocation process in order to provide up-to-date information about how translocated slow worms behave within a viable and secure alternative habitat. This solution means that there is no possibility of subsequent disturbance being caused to the reptiles, unlike a nearby site which will not give the animals the same level of security as has been previously experienced.
- 1.1.4 Reptiles such as adders, grass snakes, common lizards and slow worms in Britain are protected under the Wildlife and Countryside Act against harm and their wellbeing should be carefully considered prior to any change to their existing habitat whenever this is considered. Other species of reptiles have specific legal protection concerning their habitat. Only slow worms were found to be present within the Frogmore Lane Site following the initial Reptile Survey in August, 2014 and during subsequent site visits which are on-going.
- 1.1.5 As responsible landowners, Driftstone Homes Limited has requested confirmation of the presence/absence of reptiles and their subsequent translocation to a suitable and secure alternative site prior to any consideration to alter the habitat within the Frogmore Lane Site.
- 1.1.6 The details of the methodology used, observations from the Reptile Surveys during August, 2014 and from April, 2015, the provision of artificial refugia within the overgrown sections within the gardens of 45 and 49 Frogmore Lane, Lovedean and the results from the subsequent site checks thus far, are contained within this Report Document. Details of the agreed receptor site at the Alver Valley are also included.



ABOVE: A DIAGRAM SHOWING THE INITIAL 15 ARTIFICIAL REFUGIA PLACED WITHIN THE OVERGROWN SECTION OF THE REAR GARDEN TO 45 FROGMORE LANE AND THE INITIAL 8 ARTIFICIAL REFUGIA PLACED WITHIN THE OVERGROWN SECTION OF THE REAR GARDEN TO 49 FROGMORE LANE.

2.0 THE SITE SURVEYS

2.1 METHODOLOGY

- 2.1.1 The purpose of the site surveys is initially to carry out visual inspections during daylight hours preferably on a number of occasions and in varying weather conditions of all the features of the site particularly the areas of grassland and/or taller ruderal vegetation, the shrub cover along the boundaries and any wooded margins, etc. for evidence of reptile activity. In addition, searches for the presence of other species is also undertaken. A general mammal survey was also conducted as part of the initial reptile surveys whereby badgers, foxes, roe deer and small mammals were confirmed as being present or absent. Trees were inspected for evidence of bat activity and a single remaining shed was also inspected internally and externally for evidence of both bat activity and for evidence of bird nesting.
- 2.1.2 The site surveys/visits included systematically searching the entire site by means of walk-over inspections in line with accepted guidelines for signs of reptile, mammal, bird and invertebrate activity, which included noting any signs of ecological interest. Artificial refugia, which comprised cut sheets of roofing felt laid throughout the areas of grassland cover where reptiles were considered to be present, were inspected and any reptiles found basking under the refugia were initially noted together with air and ground surface temperatures under the refugia. The recording of temperatures is not always undertaken but it is considered important during certain weather conditions and both during early spring when the animals emerge from their winter hibernation and at the end of the summer when temperatures fall and reptiles begin to hibernate for winter. Specimens found were also photographed to confirm their presence and for subsequent identification purposes.
- 2.1.3 The initial reptile survey of the Frogmore Lane Site confirmed the presence of a small number of slow worms (*Anguis fragilis*). Adult and juvenile specimens were observed under the artificial refugia placed throughout the two overgrown gardens for the purposes of monitoring and the subsequent capture of slow worms for later translocation. The initial reptile survey of the Receptor Site also confirmed the presence of a small number of slow worms (one single young female initially) which confirms the suitability of this site as viable for slow worms.
- 2.1.4 Once reptiles are found to be present the established method of determining the density of the reptiles was undertaken by laying additional artificial refugia, initially at random within the grassland cover and ruderal vegetation near the centre of the site and subsequently elsewhere within the shrub margins where the slow worms tend to congregate. The refugia comprise sheets of roofing felt cut to approximately 500 mm x 800 mm. Roofing felt is normally used as it warms more quickly from sunshine than corrugated metal, a material previously used for checking and capturing reptiles but now superseded by the use of roofing felt. Roofing felt gains heat more quickly than the surrounding vegetation, particularly in sunny weather conditions during spring and autumn. The reptiles, being 'cold blooded', migrate from the vegetation to the sheets of roofing felt to warm their bodies under these materials. Once the reptiles have increased their body temperature they may become more active and are able to search for prey within the surrounding habitat. They may also continue to bask under the refugia until temperatures begin to drop during late afternoon or early evening.
- 2.1.5 As part of the study being undertaken within the Alver Valley Receptor Site different sizes of felt have been placed within the grassland margins together with corrugated metal to gauge whether slow worms are likely to have a preference for basking under different materials.
- 2.1.6 The refugia are numbered and a diagram of the Donor Site is produced showing the main site features including areas of vegetation such as tree and shrub cover, bramble and grassland. The locations of each of the artificial refugia are indicated within the diagram



SITE DIAGRAM SHOWING THE MAIN FEATURES AND THE LOCATIONS OF THE INITIAL ARTIFICIAL REFUGIA PLACED WITHIN THE RECEPTOR SITE IN THE ALVER VALLEY. THE FELT MARKED IN RED INDICATES THE LOCATION WHERE THE FIRST SLOW WORM WAS OBSERVED BASKING DURING THE INITIAL SITE CHECK/VISIT.

so that accurate records of where each reptile is found basking under the sheets is noted. The data collated includes weather conditions, air temperatures and ground surface temperatures under the refugia, where considered appropriate, and the animals observed basking under the refugia are recorded as Adult Males, Adult Females, Young Adult Males, Young Adult Females, Juveniles and Babies. A note of any slow worms that have previously lost their tails (A natural process known as *Autotomy* whereby lizards are able to avoid becoming victims of predators by detaching the tail), is recorded in order to gauge levels of attempted predation. Colour variation in individual specimens is also recorded. The same process is used within the Receptor Site.

- 2.1.7 Following the initial assessment, moving or increasing the number of refugia, confirms whether reptiles are present in particular locations within the site. When precisely recorded such information provides an accurate indication of numbers of specimens and the locations where the reptiles prefer to bask.

- 2.1.8 The techniques used are based where relevant on those recommended by The Herpetofauna Groups of Britain and Ireland: *Evaluating local mitigation and translocation programmes; maintaining best practice and lawful status* and on a considerable number of years of experience of studying reptiles and other species in their natural habitat and undertaking numerous reptile translocation programmes. This ensures that the most credible and accurate data is recorded and all aspects and processes are carried out to the highest standards when dealing with reptiles, particularly their wellbeing, and to ensure that lawful status is maintained at all times.

- 2.1.9 Experience in reptile translocation has confirmed that some aspects of the guidelines are not always relevant to particular issues related to a site as each site is different and may have varying habitat issues or even have certain constraints associated with the site. Site specific issues require close attention to detail and intensive or long term monitoring may alter the detail of a particular project.

- 2.1.10 It should be noted that reptiles can be found basking under artificial refugia in wet weather conditions when skies are dull and overcast and that it is not necessary to restrict the monitoring of reptiles to sunny weather which is often wrongly referred to as 'suitable dry weather conditions' within the guidelines. One young female slow worm was found late on the evening of 11 June, 2013 basking on pond weed at the edge of a pond on a site in Bordon in Hampshire. It was observed entering the water and disappearing quickly beneath the surface water when an attempt was made to photograph the specimen. It is in fact ground surface temperatures under the refugia that are relevant to the presence or absence of reptiles. There are no specific times during the day that reptiles may be absent or less likely to be found within suitable habitat. Weather patterns constantly change and the warmth from the sun may alter frequently hour by hour throughout the day. Some refugia will be found at times in shaded, or partially shaded locations with reptiles basking underneath them while reptiles may be absent from refugia placed in sunny locations. Reptiles will bask on occasions from early morning and at any time throughout the day until late afternoon or when evening temperatures begin to fall, contrary to suggestions made within some guidelines.

- 2.1.11 Photography is used to record some of the specimens found during the site visits and other aspects of the surveys and monitoring process which also includes recording and photographing the main site features, etc. Identification of some individuals when observed within the site during the surveys, may be relevant as later identification during the post monitoring process or when translocation to a receptor site is undertaken may provide useful additional data.

- 2.1.12 There is always a risk that some form of disruption is carried out during the process of monitoring reptiles using artificial refugia. The potential for human interference is another reason why roofing felt is used as opposed to corrugated metal sheets which when lifted and revealing a reptile basking under the metal, if the sheet is then dropped carelessly this is likely to cause injury or death to the reptile(s) basking under the corrugated metal



TOP: ONE OF THE CUT SHEETS OF ROOFING FELT PLACED WITHIN THE GRASSLAND COVER WITHIN THE ALVER VALLEY RECEPTOR SITE FOR MONITORING BASKING SLOW WORMS. THIS IS THE SAME MATERIAL PLACED WITHIN THE TWO OVERGROWN SECTIONS OF GARDENS WITHIN 43 AND 47 FROGMORE LANE, LOVEDEAN.

ABOVE: ONE OF THE CORRUGATED METAL SHEETS PLACED WITHIN THE GRASSLAND COVER WITHIN THE ALVER VALLEY RECEPTOR SITE ALSO USED FOR MONITORING BASKING SLOW WORMS.

sheet. Roofing felt is easier to move around a site than metal and is cheaper to replace if taken from a site. During Autumn and Spring, when temperatures can be lower than in Summertime, felt will tend to warm more quickly than metal and is likely to provide longer basking times for juvenile specimens which may still be present in late autumn, or may emerge earlier than adults in the Spring.

- 2.1.13 It should be noted that all reptile species in Britain hibernate from October-November until March-April the following year. Capture and translocation therefore is only possible when reptiles emerge from hibernation from March-April each year.



TOP: A VIEW OF THE REAR SECTION OF THE OVERGROWN GARDEN TO 45 FROGMORE LANE WHERE SLOW WORMS HAVE BEEN CONGREGATING AND WHERE ADDITIONAL REFUGIA HAVE BEEN PLACED TO MONITOR THEIR MOVEMENTS.

ABOVE: A VIEW OF THE OVERGROWN GARDEN TO 59 FROGMORE LANE FROM THE BOUNDARY FENCE OF 47 FROGMORE LANE LOOKING TOWARDS THE CENTRE OF THE GARDEN.

3.0 THE SURVEY EVALUATION

3.1 THE REPTILES

- 3.1.1 Slow worms (*Anguis fragilis*) were initially found to be distributed within the margins of grassland and the taller ruderal vegetation that covers parts of the rear gardens of 45 and 49 Frogmore Lane, Lovedean. Common field voles (*Microtus agrestis*) were also observed within runs and nests that they had created under a number of the artificial refugia.
- 3.1.2 The results of the site checks/visits undertaken throughout August, 2014 confirmed that there was a number of slow worms scattered throughout the shrub margins within the two gardens, together with a small number of common frogs.
- 3.1.3 It should be noted that only part of a population of reptiles will be found during an initial survey or during subsequent site checks/visits for checking refugia on any given day. Consideration of factors such as weather conditions (although it should be noted that slow worms will be present in wet weather providing that the air temperatures and the ground surface temperatures under the refugia remain mild), the quality of the habitat, the number of site checks and the locations and density of artificial refugia, will lead to it being possible to roughly estimate the population of reptiles occupying a particular area.
- 3.1.4 From the site checks/visits and comparisons with other sites comprising similar habitat and from which successful translocation programmes have previously been undertaken, an estimate of numbers of reptiles can also be assessed. This process is undertaken in line with the HGBI Reptile Mitigation Guidelines, and the standards set by way of a considerable number of years of experience with observing reptiles in the wild, and with consideration for the size of the reptile habitat present throughout the site. The highest number of slow worms recorded was seven specimens on one single day in early August. They included Adult Males and Females, a Young Male and Female and a single Juvenile. This indicates that a viable colony exists within the two gardens. (See Appendix 1).

3.2 AMPHIBIANS

- 3.2.1 There is a decorative pond within the rear garden of 41 Frogmore Lane and a small pond is located in the centre of the rear garden of 47 Frogmore Lane and there are likely to be ponds within other gardens nearby or adjacent to the site. Common frogs (*Rana Temporaria*) are present and have been observed within the grassland cover. No adult or juvenile great crested newts (*Triturus cristatus*), were found during the site checks/visits and this species is considered to be absent. Smooth, or common newts (*Triturus vulgaris*), palmate newts (*Triturus helveticus*), and common toads (*Bufo bufo*) were not observed anywhere around the site during the site checks/visits, although these species may be present. All three of these common species may be found on occasions under refugia laid for the observation or capture of reptiles from January each year depending on weather conditions and when breeding occurs.

3.3 BIRDS

- 3.3.1 Common bird species have been observed using the site for both feeding or flying across the site within the boundary tree and shrub cover. No ground nesting species are likely to be present due to the size and location of the site within an urban setting. Common bird species observed during the site surveys/visits include: blackbird (*Turdus merula*), blue tit (*Parus caeruleus*), collared dove (*Streptopelia decaocto*), magpie (*Pica pica*), robin (*Erithacus rucula*) and wood pigeon (*Columba palumbus*).

3.4 MAMMALS

- 3.4.1 Badger (*Meles meles*) and Dormouse (*Muscardinus avellanarius*) are absent as are rabbits and roe deer (*Capreolus capreolus*). Foxes (*Vulpes vulpes*) are present.



**TOP: A VIEW OF PART OF THE RECEPTOR SITE SHOWING ONE OF THE FELT SHEETS LAID WITHIN THE GRASSLAND COVER ADJACENT TO THE TREE AND SHRUB LAYER FOR MONITORING THE SLOW WORMS.
ABOVE: A VIEW OF THE RECEPTOR SITE LOOKING NORTH WEST SHOWING A SECTION OF THE GRASSLAND AND TREE AND SHRUB COVER ALONG THE NORTH EASTERN BOUNDARY.**

4.0 THE RECEPTOR SITE

4.1 DESCRIPTION

- 4.1.1 A Receptor Site has been suggested for the translocation of the slow worms from Frogmore Lane within the Alver Valley Nature Reserve in Gosport which is currently managed by the Countryside Section of Gosport Borough Council for a variety of wildlife species. The site has been selected as a programme of study of reptiles is underway during 2015-16 within the Alver Valley and at nearby Browndown and the site has been confirmed to be viable for a translocation of reptiles as there are suitable habitats to hold a small-medium sized population of translocated slow worms. The presence of a small population of slow worms has been confirmed following initial surveys and it has now been confirmed that the area is suitable for an additional population of slow worms.
- 4.1.2 It should be noted that a site at Catherington Down with access by the public has been used previously but due to human interference a more local site has been rejected in favour of a site which is enclosed within four gates and which has no public access and can be closely monitored as part of a detailed reptile study.
- 4.1.3 Further surveys prior to translocation from April, 2015 have confirmed that there are similar plant species within the grassland/ruderal vegetation margins as that within the donor site. Small mammals and common amphibian species are already known to be present within the receptor site.
- 4.1.4 The receptor site provides natural features and shrub and grassland cover along with some woodland edge suitable for reptiles therefore artificial refugia have been placed along the margins within the grassland cover from April, 2015 to allow for the monitoring of the existing slow worm population. Subsequently the refugia will be used for monitoring translocated reptiles as they migrate out into the wider habitat as part of the reptile study. Felt sheets and corrugated metal have been placed within the receptor site for the purposes of monitoring the existing slow worms present within the grassland margins and for invertebrate species to use for shelter. Insect species will provide a food resource for any existing slow worms present within the receptor site and for the translocated specimens after capture from the donor site at Frogmore Lane from May-June, 2015.



TOP: THE REPTILES RETRIEVED FROM THE DONOR SITE ARE CAREFULLY PLACED IN A TALL CONTAINER AND SUBSEQUENTLY RELEASED UNDER A FELT WITHIN THE RECEPTOR SITE.
ABOVE: ALL SPECIMENS ARE CHECKED AND RECORDED WHEN THEY ARE RETRIEVED FROM THE DONOR SITE AND AGAIN AFTER TRANSLOCATION AND PRIOR TO THEIR RELEASE WITHIN THE RECEPTOR SITE.

5.0 THE RECEPTOR SITE

5.1 METHODOLOGY

- 5.1.1 The Receptor Site at the Alver Valley is agreed to be viable for both the Reptile Study and for the translocation programme by Fred Gibson, the Countryside Officer of Gosport Borough Council. Two sizes of cut sheets of roofing felt and corrugated metal sheets have been placed at suitable locations for use as artificial refugia. The felts are being inspected in line with the monitoring which is continuing to be undertaken within the Donor Site at Frogmore Lane. This will be followed by placing additional refugia as has been undertaken at the Frogmore Lane Site within the grassland cover in preparation for the release of slow worms to be retrieved from the Donor site.
- 5.1.2 The same process as that being used on the Donor Site for checking the artificial refugia is being carried out. Each felt and corrugated metal sheet is being lifted in turn and any reptiles or amphibians found basking under the refugia recorded. Photographs are being taken of the site and the surrounding area and of any signs of ecological interest is being recorded and where possible photographed.
- 5.1.3 On each occasion when reptiles are translocated to the site the container in which they are transported will be placed on the ground near to the artificial refugia selected for the release of the reptiles. Grass taken from the Donor Site will be placed on top of soil laid in the base of the container and then placed under the artificial refugia. The reptiles will then be carefully lifted out of the container and counted and individually inspected, the specimens will be photographed before being released into the ground cover under the artificial refugia and observed moving into the undergrowth. The earth from the container will also be placed under the felt sheet and the sheet will then be replaced in position.
- 5.1.4 During subsequent site visits to release translocated specimens, the artificial refugia will again be inspected to check the level of migration of the slow worms previously released. Within two days specimens are likely to appear under the refugia placed elsewhere within the Receptor Site from the felt used for release. Further monitoring will take place throughout the summer of 2015 and into the autumn, to record the success rate of the translocated slow worms and to check for other species that may appear within the established grassland. Data will be recorded and further reports will be produced as part of the Reptile Study and the translocation programme. Further site checks and study will continue during 2016 to determine the level of success of the translocation programme which will include the level of breeding success and integration with the existing slow worm population, the locations preferred by the animals for basking and any preference for the type of artificial refugia, etc.
- 5.1.5 Consideration will be given to the construction of hibernaculum within the Receptor Site and precisely when the slow worms enter their winter hibernation.



TOP: THE TOOTHED BUCKET IS USED TO SLOWLY RAKE THROUGH THE VEGETATION AND ANY REPTILES FOUND ARE CAREFULLY REMOVED AND PLACED IN A TALL CONTAINER FOR SUBSEQUENT TRANSLOCATION. ABOVE: THE TOOTHED BUCKET IS THEN USED TO RAKE DEEPER INTO THE SURFACE SOIL LEAVING THE GROUND CLEAR OF VEGETATION TO DISCOURAGE REPTILES FROM RE-ENTERING THESE AREAS.

6.0 THE DESTRUCTIVE SEARCH

6.1 METHODOLOGY

- 6.1.1 Following the results from the inspections of the artificial refugia initially placed within the Frogmore Lane Site, the slow worms will be captured and carefully translocated to the Receptor Site. Strimming of the grassland cover and the taller ruderal vegetation to above the ground surface will then be undertaken in stages. This should be carried out by experienced tree surgeons under supervision in order to prevent harm to any reptiles which may still be present within the Donor Site. As sections of the site are strimmed additional artificial refugia may then be placed within the strimmed areas to observe any remaining reptiles that may still be found basking under the sheets of felt. Diagrams will be produced showing the locations where the refugia are placed and where individual specimens are retrieved during the final stages of the translocation process.
- 6.1.2 Slow worms are retrieved from the refugia where they are found basking by carefully grasping them by the upper body. This is important as attempting to grab a moving slow worm, or other lizard, may force it to detach its tail which is unnecessary when handling these creatures. The captured slow worms are then placed within a deep open container which has loose soil placed in the bottom with vegetation taken from the site which is placed on top of the soil. Slow worms placed in the container will initially lay within the vegetation and may also move into the soil during transportation to the Receptor Site. The process used ensures that all the slow worms retrieved remain calm and are not harmed and that stress is kept to the absolute minimum prior to their release under refugia previously placed within the Receptor Site. Upon their release the slow worms are again inspected and counted and the time and location of their release is recorded.
- 6.1.3 The next stage is the process known as a Destructive Search. This is undertaken using a machine with a driver who preferably is experienced in this process. The machine is fitted with a toothed bucket and positioned on previously cleared ground. The bucket is used initially to slowly rake through the taller vegetation. This process and the natural vibrations from the machine will normally ensure that any animals present in the surface vegetation will tend to move away safely. A wildlife expert, preferably with a number of years of experience with dealing with reptiles and amphibians, should be present at all times with the machine driver ready to stop the machine should any animal be seen as the machine is then used to rake through the surface soil. Following raking through the surface vegetation the toothed bucket is then used to slowly rake through the surface soil while the wildlife expert checks each movement of the machine's bucket in readiness to stop the machine should an animal be discovered in the surface soil. Upon completing this process the toothed bucket is then used to rake deeper into the surface soil and is then used to create a pile of vegetation and soil which is placed on the already cleared ground nearby. The cleared surface soil behind the machine and the piles of vegetation are checked a second time to ensure that no animals remain in these materials.
- 6.1.4 The process is continued with the wildlife expert continuing to check progress through the surface soil. All reptiles that come to the surface are retrieved carefully and placed safely in the open container, and the animal and the location where it is found is recorded. The process continues a section at a time working towards the rear of the site so that any animals initially disturbed by the movement and vibrations of the machine, or the movement of the soil, migrate towards areas of the site where the surface vegetation is deliberately left undisturbed for animals that may remain on the site.
- 6.1.5 While this process continues, artificial refugia are repositioned into the areas for subsequent searching by the machine and then inspected and any reptiles found retrieved safely before the machine is used to rake through the next section. When sufficient ground is searched the machine can then be used to excavate the exposed areas of the site as reptiles and other animals will not migrate into areas that have been cleared of vegetation. This method alleviates the need for reptile fencing as the

animals will remain in the vegetated areas and will not migrate onto cleared areas comprising bare soil.

- 6.1.6 The machine may also be used to track up and down over the cleared areas to ensure that these parts of the site thusfar devoid of vegetation and animals remain unsuitable for ground dwelling species to continue to maintain a presence. This may be with the exception of common bird species which will exploit the exposed areas to feed on worms and insect larvae that may remain on the surface.
- 6.1.7 The areas along the boundaries may be left intact which includes shrub cover and vegetation at the base of the remaining shrubs and trees which are left to provide cover for any reptiles and small mammals that may remain on the site. Consideration may be given to erect reptile fencing along these margins should parts of the cleared ground be left to regrow during the following spring or summer. Alternatively the cleared ground may require further attention around the margins during early summer to ensure that regrowth is limited or the plants are prevented from re-establishing during the warmer months of spring.



TOP: AN ADULT MALE SLOW WORM WITH A SHORTENED TAIL OBSERVED BASKING UNDER FELT 12 ON 13/05/15 PLACED NEAR THE REAR OF THE GARDEN TO 45 FROGMORE LANE PRIOR TO ADDITIONAL ARTIFICIAL REFUGIA BEING PLACED TOWARDS THE REAR OF THE SITE.
ABOVE: A YOUNG ADULT FEMALE SLOW WORM OBSERVED UNDER A FELT ON 13/05/15 LOCATED TOWARDS THE NORTH EASTERN END OF THE RECEPTOR SITE WITHIN THE ALVER VALLEY.

7.0 REPTILES PRESENT WITHIN THE FROGMORE LANE DONOR SITE AND WITHIN THE RECEPTOR SITE AT THE ALVER VALLEY

7.1 THE SLOW WORM (*Anguis fragilis*)

- 7.1.1 The slow worm (*Anguis fragilis*) is a legless lizard and in common with other lizards has the ability to detach its tail. This process is known as *autotomy* and is a means by which the animal is able to escape a predator as when the tail is detached it wriggles violently as the slow worm makes its escape. If discovered basking in warm sunshine, in order to increase its body temperature in common with other reptiles, the slow worm may remain still or even move slowly when first discovered. When suddenly disturbed the animal can in fact move very quickly indeed, similarly to other reptiles.
- 7.1.2 The distribution of the slow worm in Britain is varied and it is known to be more commonly found in the south. The slow worm is also known to be present in a large part of the world and can be found from eastern Asia through much of Europe and Britain and has also been found in Wales and the north of Scotland. The slow worm is protected under the Wildlife and Countryside Act 1981 due mainly to habitat loss rather than it being considered as a rare or endangered species.
- 7.1.3 Slow worms can vary in colour although they are more commonly brown or golden with darker sides and undersides of either black or dark grey. A dark dorsal stripe runs the length of the body and is found on juveniles and adult females while males lack the stripe and are often thicker around the body and larger than the females. Blue spots are frequently found on older males mainly, appearing on specimens older than three years. Females can also have these markings although it is rarer in females than in males. This colouring is known as the form *Colchica*.
- 7.1.4 Adult slow worms can be found above ground on occasions, although normally they bask in warm sunshine within vegetation often with just their heads visible. They can be found under materials that are warmed by sunshine such as corrugated metal, plastics, etc. which is primarily how slow worms are studied, or captured under such materials which are used as refugia. Juveniles and baby slow worms can be found in damper conditions or may emerge earlier than the adults in the mornings in suitably warm weather conditions. Slow worms burrow into soft soil below ground or in leaf litter and the roots of plants and longer grasses in surface vegetation. They may also frequent compost heaps in gardens, and are frequently found near to or within ant nests.
- 7.1.5 Slow worms hibernate from October or November and emerge from their hibernation during March each year. Mating usually takes place in May and the young develop within the mother for three to five months, being born towards the end of August or the beginning of September. In cold conditions the female may hibernate still carrying the embryos throughout the winter, then give birth in the following March. At birth the baby slow worm may be between 65-90 mm in length and a litter is usually 6-12 individuals, although there can be 20 or more. When newly born they are normally golden in colour with the distinctive dorsal stripe with black sides and undersides. Young and adults can often be found basking together, although upon emergence in the spring the young may stay in the vicinity of the hibernation site often in more damper habitat while the adults may move into nearby grassland. Like other lizards and snakes, the skin is sloughed (*or shed*) at times throughout the summer months.
- 7.1.6 Slow worms feed mainly on slugs, and snails are also eaten as are other invertebrates. It is not known how long slow worms are able to survive in the wild, although captive specimens have been known to live as long as fifty years.

8.0 LEGISLATION: SPECIES PRESENT AND THEIR LEGAL STATUS

8.1 All wildlife species in Britain are protected against acts of cruelty and certain species have legal protection under current legislation. Protected species remain present around the boundaries of the site and are also found within 2 km of the site. The species which visit or are present around the site include bats, breeding birds and one species of reptile - the slow worm. Bats are not considered to be roosting within the site and common bird species are not currently nesting within the Frogmore Lane Site, but are present within the Receptor Site within the Alver Valley.

8.2 BATS

8.2.1 All species of bats and their roosts in Britain are protected under the Wildlife and Countryside Act, 1981 (as amended by the CroW Act, 2000), and the Conservation Regulations, 1994. It is considered an offence to damage or destroy a bat roost, intentionally or recklessly obstruct a place of shelter, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

8.3 BREEDING BIRDS

8.3.1 Nesting birds are protected under the Wildlife and Countryside Act, 1981, and it is an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy its eggs. In addition, for some rarer bird species listed in Schedule 1 of the Act, it is an offence to intentionally or recklessly disturb birds while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

8.4 REPTILES

8.4.1 The grass snake (*Natrix natrix/helvetica*), the common lizard (*Lacerta vivipara*) and the slow worm (*Anguis fragilis*) are protected under the Wildlife and Countryside Act, 1981. Section 9(1) and all of Section 9(5) apply. Reptiles are protected against intentional killing and injuring (but not taking) and against sale, transporting for sale or publishing advertisements to buy or sell such species.

8.4.2 Once captured all British reptiles become subject to the Protection of Animals Act, 1911, which prohibits cruelty and mistreatment. Releasing a reptile in such a way to cause undue suffering may be an offence under the Abandonment of Animals Act, 1960.

9.0 SUMMARY

9.1 THE TRANSLOCATION PROGRAMME

- 9.1.1 The site at Frogmore Lane, Lovedean comprises three cultivated rear gardens to 41, 43 and 47 which are well tended and comprise trimmed lawns and shrub and flower borders. The two sections of the rear gardens to 45 and 49 have been left in an overgrown condition for some time. During the initial site check on 30 July, 2014 the two gardens were assessed as providing viable habitat for reptiles and during the seven site checks/visits subsequently undertaken during August, 2014, reptiles were observed basking under the artificial refugia previously laid for checking for the presence of reptiles.
- 9.1.2 A previous translocation of slow worms was undertaken from the adjacent site to Catherington Down with the agreement of staff from the Queen Elizabeth Country Park. This process was considered to be unsuccessful due to interference caused by local residents as Catherington Down has public access as do many other local sites. The decision therefore was made to translocate the slow worms to a secure site within the Alver Valley in Gosport where there is no public access and less likelihood of disturbance.
- 9.1.3 The decision to translocate a small population of slow worms was given approval by Fred Gibson, the Countryside Officer for Gosport Borough Council. It was considered that there was no need for a formal agreement as there is only a small population of slow worms, and the intention is to undertake a detailed on-going study of the animals once they are released into their new habitat. Although consideration to translocate slow worms to a local site would have previously been considered, this would not be as convenient for the process of subsequent study of the animals within a secure section of habitat within the Alver Valley.
- 9.1.4 An attempt has been made to interfere with the translocation and subsequent study of the slow worms but this has been firmly rejected as having no sound basis. Reptiles are currently being moved over larger distances than previously partly due to the lack of suitable alternative and compatible habitat. Such alternative habitat needs to be free from future encroachment or any level of disturbance. There is no rule that indicates that reptiles cannot be moved into another borough for instance and provided there is agreement with the landowner there is no requirement for licencing. This is provided that a properly experienced reptile handler is involved with the translocation process and that lawful status is maintained at all times, which clearly would be the case in respect to the release of slow worms into the site chosen within the Alver Valley.
- 9.1.5 Sufficient details of the translocation methods and the selected receptor site are described within this document and due to the soundness of the proposal to include the study of the slow worms subsequent to their release into a secure local site with compatible and a much larger area of habitat, and there being the possibility for the animals to freely migrate into an even larger adjacent area, renders the proposal as a very worthy prospect.

APPENDIX 1:

The initial Reptile Survey of the Donor Site at Frogmore Lane was conducted on 5/08/14 subsequent to artificial refugia being laid throughout the upper sections of the overgrown gardens of 45 and 49 Frogmore Lane which was followed by seven further site visits throughout August, 2014.

Typical data recorded during the site checks is as follows:

Site Check commenced at 10.28. Weather: Breezy, overcast with hazy sun.

Temperatures at 10.28: 25.2 Air temperatures, Ground Temperatures under refugia: 25.1

REFUGIA	REPTILES OBSERVED	TEMPS RECORDED		NOTES
1	-	25.4	27.1	
2	-	25.5	29.8	
3	-	25.9	31.3	
4	-	26.1	31.3	
5	-	26.2	31.3	
6	-	26.2	31.3	
7	-	26.3	31.3	
8	-	26.3	31.3	
9	-	26.4	31.3	
10	-	26.4	31.3	Black Ant Nest
11	-	26.6	31.3	
12	1 Adult Female Slow Worm	26.7	31.3	
13	-	26.9	31.3	
14	1 Adult Male/1 Adult Female	27.0	31.3	
15	-	27.3	31.3	
16	1 Juvenile Slow Worm	27.6	31.3	
17	1 Young Female/1 Juvenile	27.4	31.3	
18	-	27.8	31.3	
19	-	28.0	31.3	
20	-	28.1	31.3	
21	-	28.3	31.3	Field Vole
22	1 Young Male Slow Worm	28.5	31.3	
23	-	28.2	31.3	

Site Check completed at 11.00 in Bright Sunny conditions.

Temperatures at 11.00: 29.8 Air temperatures, Ground Temperature under refugia: 31.7
